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managed by Brookhaven Science Associates
for the U.S. Department of Energy

May 5, 2021

Mr. Brian Jankauskas
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
625 Broadway – 12th Floor
New York, New York 12233-7051

Ms. Sharon Hartzell
Federal Facilities Section
U.S. EPA – Region II
290 Broadway – 18th Floor
New York, New York 10007-1866

Dear Mr. Jankauskas and Ms. Hartzell:

**SUBJECT: BROOKHAVEN NATIONAL LABORATORY (BNL) INTERAGENCY
AGREEMENT (IAG) – MONTHLY REPORT FOR APRIL 2021**

In accordance with the Interagency Agreement (IAG) for Brookhaven National Laboratory (BNL), enclosed is the Monthly Report for April 2021 covering the Long-term Stewardship (LTS) areas listed below:

- Brookhaven Graphite Research Reactor (BGRR) Surveillance and Maintenance
- High Flux Beam Reactor (HFBR), including the Waste Loading Area (WLA) Surveillance and Maintenance
- Soil and Water Remediation

If you have any questions, please call Gerald Granzen at (631) 344-4089.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Dorsch", with a stylized flourish at the end.

William Dorsch, Manager
Groundwater Protection Group

Enclosure, as stated:

cc: w/encl.

P. Armani, NYSDEC
C. Costello, NYSDOH
D. O’Hehir, NYSDOH
S. Rushford, NYSDOH
A. Rapijko, SCDHS
J. Wanlass, SCDHS
M. Soucie, NYSDOH
D. Pocze, EPA

J. Carter, BHSO
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G. Granzen, BHSO
C. Kwok, BHSO
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J. Remien, BSA
S. Coleman, BSA
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D. Paquette, BSA
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File: GWER 17.1.21

**Brookhaven National Laboratory
Interagency Agreement (IAG) Monthly Report
April 2021
Long Term Stewardship (LTS) Activities**

**BROOKHAVEN GRAPHITE RESEARCH REACTOR (BGRR) SURVEILLANCE AND
MAINTENANCE**

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements

- Conducted routine surveillance and maintenance (S&M) activities.
- A quarterly inspection of the high bay and former offices was performed 4/23/21. There were no significant issues identified.

Highlights of any changes to objectives and description of any changes in technical approach

- None.

Key Issues

- None.

Planned Actions for the Next 90 Days

- Continue S&M activities.
- The annual inspection of the below ground ducts is scheduled for 5/5/21. A new leak detection sensor in the south duct will be installed.

**HIGH FLUX BEAM REACTOR (HFBR) INCLUDING, STACK, GROUNDS, AND WASTE
LOADING AREA (WLA) SURVEILLANCE AND MAINTENANCE**

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements

- BSA and BHSO participated in the weekly stack demolition coordination teleconferences with the Army Corps of Engineers (USACE) and DOE's Office of Environmental Management (EM).
- NYSDEC Project Manager conducted a site visit of stack demolition soil excavation 4/6/21.
- The USACE and contractor briefed the regulators on the status of the stack demolition during the 4/1/21 IAG monthly teleconference. The Community Advisory Council (CAC) was also briefed 4/8/21.
- Submitted the contractor's planned approach to address the three drain lines within the pedestal concrete structure to the regulators 4/6/21. The regulators provided concurrence.

- Contractor continued scabbling the top of the stack pedestal and removal of the footer located beneath the connection of the former silencer and the plenum.
- The stack contractor put a temporary cap on the old out-of-service USGS monitoring well adjacent to the excavation area. BSA will abandon the well in accordance with State guidelines following contractor demobilization from the site.
- In response to a CAC member request for air monitoring data, it was determined that the information will be made available in the final Closeout Report.
- Community Air Monitoring Plan (CAMP) air monitoring data was distributed to the regulators weekly.

Highlights of any changes to objectives and description of any changes in technical approach

- None.

Key Issues

- Meeting held among BSA, DOE, USACE, the contractor and the regulators 4/28/21 to discuss stack demolition progress and pending schedule delays.
- Continue to perform the remaining demolition work safely.

Planned Actions for the Next 90 Days

- Continue S&M activities.
- Contractor to complete removal of the footer as well as scabbling the top of the stack pedestal. Contractor will then perform a final status survey (walkover survey and soil sampling) of the three areas.
- Following delivery of empty intermodal containers (IMCs), complete waste loading and prepare for second waste rail shipment.
- The contractor will load the stockpiled waste in the excavation into IMCs, then perform a final status survey (walkover survey and soil sampling) of the area. Oak Ridge Institute for Science and Education ORISE will then perform independent verification surveys of the stack area.
- BSA to revise the stack demolition radiological air monitoring summary and resubmit to the regulators.
- The next quarterly inspection of the confinement dome and outside areas is scheduled for 5/6/21.

SOIL AND WATER REMEDIATION

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements:

- The IAG monthly teleconference was held 4/1/21 and included updates on the HFBR stack and Building 650 demolition, upcoming Community Advisory Council (CAC) meeting, 2020 Landfills Monitoring Report and the Five-Year Review.

- The NYSDEC Project Manager conducted a site visit 4/6/21 of the stack demolition, Building 650 demolition and the Current Firehouse and Former Firehouse PFAS source areas.
- The CAC meeting was held 4/8/21 and included environmental updates on HFBR stack demolition and Building 650 demolition.
- Continued internal review of the 2020 Groundwater Status Report and 2021 CERCLA Five-Year Review Report.
- Work continued on the Phase 5 PFAS characterization and planned remediation including:
 - The draft Time Critical Removal Action (TCRA) Characterization Report was issued 4/14/21 for regulator availability on Microsoft Teams.
 - The consultant submitted the final design incorporating BNL and BHSO comments. The drawings and specifications were submitted to PPM to begin the procurement process.
 - BSA field team completed the installation of four additional temporary wells to better define the west/east boundaries of the current and former firehouse PFAS plumes at West Princeton Avenue and East Princeton Avenue, respectively.
 - Continued preparation of the Design Report and TCRA Action Memorandum.
- Well drilling contractor installed three vertical profiles at the OU VI EDB project to support the groundwater modeling work for the Five-Year Review.
- The Western South Boundary extraction well WSB-5 pump is not operating, and the well drilling contractor will remove the pump and assess the problem.
- The North Street East Ethylene Dibromide (EDB) project is having a control system problem that is causing intermittent system shutdowns. Controls contractor will troubleshoot the issue.

Highlights of any changes to objectives and description of any changes in technical approach

- None.

Key Issues

- The Laboratory continued COVID-Phase 2 operations. The Groundwater Protection Group (GPG) maintained minimal staff working on-site to manage field activities. All other GPG staff continue to work remotely.
- Prepared a revised area of concern (AOC)/operable unit (OU) justification based on EPA comments.

Planned Actions for the Next 90 Days

- The Laboratory and GPG will continue COVID-Phase 2 operations.
- The monthly IAG teleconference is scheduled for 5/6/21 and will include updates on HFBR stack and Building 650 demolition.
- Submit revised AOC justification to the regulators.
- Revise the draft Five Year Review Report based on BSA and BHSO comments and submit to the regulators in June.
- Following BSA and BHSO review and revision, submit the 2020 Groundwater Status Report to the regulators in June.
- Install two additional temporary wells to better define the west boundary of the Current Firehouse PFAS plume at West Princeton Avenue.

- Continue procurement activities for construction of the PFAS source area groundwater treatment systems. Bids to be evaluated and an award made with work expected to start in June.
- Install the carbon vessels in Building 492 for the planned Current Firehouse PFAS groundwater treatment system.
- Prepare and submit the PFAS Source Area Groundwater Treatment Systems design report and TCRA Action Memorandum to the regulators in May.
- Perform repairs to the roof of the Building 96 Treatment System extraction well RTW-1 well-house.
- Well drilling contractor to pull pump in Western South Boundary extraction well WSB-5 and repair as needed.
- As a follow-up to the recent installation of three vertical profiles at the OUVI EDB project, one additional vertical profile will be installed and sampled in May.